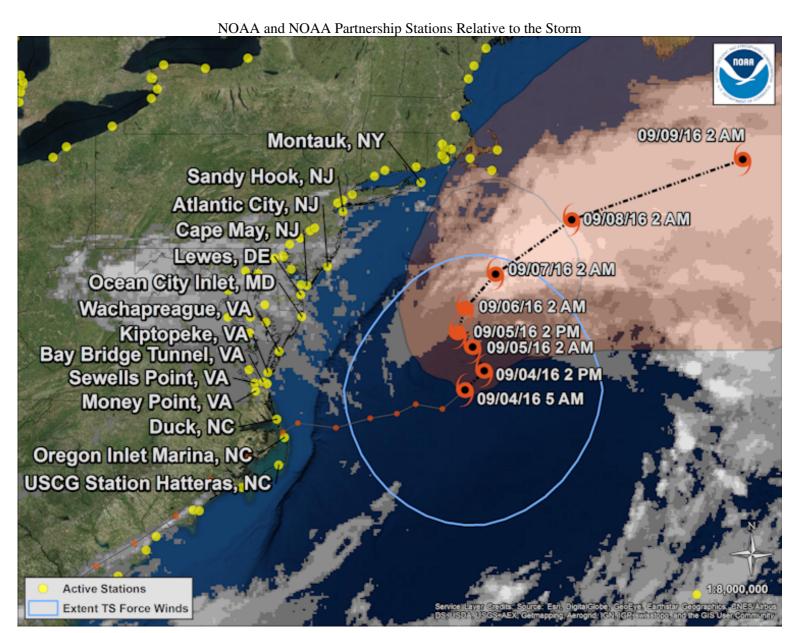




#### Post-tropical Storm HERMINE QuickLook Posted: 06:00 EDT 09/04/2016



#### Storm Analysis

As of 9/04/2016 06:00 EDT, water levels continue to be elevated along the Mid-Atlantic coast due to Hermine. At this time, the highest residual water levels are observed in southern Chesapeake Bay, including the Hampton Roads area where water levels remain 1.8 to 2.3 feet above normal tide levels. Along the Atlantic Seaboard from USCG Hatteras, NC to Atlantic City, NJ, water levels range from 1.3 to 2.3 feet above tidal predictions. Water levels from Sandy Hook, NJ to Montauk, NY including the New York City area are slightly elevated by less than 1 foot above

normal tide levels.

While winds have decreased as Hermine has moved farther off the coast, the highest winds are still observed along the coast from USCG Hatteras, NC to Lewes, DE and range from 10 to 20 knots with gusts to 30 knots. Barometric pressure is fairly steady this evening along the Mid-Atlantic coastline as the storm center is now well offshore.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: PFF

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#### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

POST-TROPICAL CYCLONE HERMINE ADVISORY NUMBER 28 NWS NATIONAL HURRICANE CENTER MIAMI FL 500 AM EDT SUN SEP 04 2016

...HERMINE EXPECTED TO SLOW DOWN AND TURN NORTHWARD LATER TODAY...

...DANGEROUS STORM SURGE TO CONTINUE ALONG THE COAST FROM VIRGINIA TO NEW JERSEY...

#### SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

\_\_\_\_\_

LOCATION...36.8N 70.8W

ABOUT 305 MI...485 KM SSE OF THE EASTERN TIP OF LONG ISLAND

ABOUT 255 MI...415 KM ESE OF OCEAN CITY MARYLAND

MAXIMUM SUSTAINED WINDS...65 MPH...100 KM/H

PRESENT MOVEMENT...ENE OR 65 DEGREES AT 12 MPH...19 KM/H

MINIMUM CENTRAL PRESSURE...998 MB...29.47 INCHES

#### WATCHES AND WARNINGS

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#### CHANGES WITH THIS ADVISORY:

The Tropical Storm Warning has been discontinued south of Duck, North Carolina.

#### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

- \* Duck to west of Watch Hill
- \* Chesapeake Bay from Smith Point southward
- \* Delaware Bay

A Tropical Storm Watch is in effect for...

- \* Watch Hill to Sagamore Beach
- \* Block Island

- \* Martha's Vineyard
- \* Nantucket

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

#### **DISCUSSION AND 48-HOUR OUTLOOK**

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At 500 AM EDT (0900 UTC), the center of Post-Tropical Cyclone Hermine was located near latitude 36.8 North, longitude 70.8 West. The post-tropical cyclone is moving toward the east-northeast near 12 mph (19 km/h). A turn toward the northeast and the north with a decrease in forward speed is expected later today, followed by a slow northward to northwestward motion through Monday. On the forecast track, the center of Hermine will meander slowly offshore of the mid-Atlantic coast for the next couple of days.

Maximum sustained winds are near 65 mph (100 km/h) with higher gusts. Little change in strength is expected today. After that, the cyclone is forecast to intensify to hurricane force late tonight and on Monday.

Hermine has a large wind field. Tropical-storm-force winds extend outward up to 205 miles (335 km) from the center.

The minimum central pressure based on recent reports from an Air Force Reserve reconnaissance aircraft is 998 mb (29.47 inches).

#### HAZARDS AFFECTING LAND

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WIND: Tropical storm conditions will continue to spread northward within the warning area along the Atlantic coast through Monday, and there may be multiple occurrences of tropical storm conditions along portions of the mid-Atlantic coast in the warning area during the next couple of days. Tropical storm conditions are possible in the watch area by Monday.

STORM SURGE: The combination of a storm surge and the tide will cause normally dry areas near the coast to be flooded by rising waters moving inland from the shoreline. Along the immediate coastline, the surge will be accompanied by large and dangerous waves. There is a danger of life-threatening inundation through tonight in the Hampton Roads area, and in the next 36 hours from Chincoteague, Virginia, to Sandy Hook, New Jersey. Persons within these areas should take all necessary actions to protect life and property from rising water. Promptly follow all instructions, including evacuation orders, from local officials. There is also the possibility of life-threatening inundation during the next 48 hours at many coastal locations between Sandy Hook, New Jersey, and Bridgeport, Connecticut.

For a depiction of areas at risk, please see the Prototype Storm Surge Watch/Warning graphic, which displays areas that would qualify for inclusion under a storm surge watch or warning currently under development by the National Weather Service and planned for operational use in 2017. The Prototype Graphic is available at www.hurricanes.gov/graphics\_at4.shtml?wsurge

The water could reach the following heights above ground if the peak surge occurs at the time of high tide...

North Carolina sounds...1 to 3 feet Hampton Roads area...2 to 4 feet Chincoteague, VA to Sandy Hook, NJ...3 to 5 feet Sandy Hook, NJ to Bridgeport, CT...2 to 4 feet RAINFALL: Heavy rainfall associated with Hermine will remain offshore through Monday/Labor Day. Hermine will produce rainfall amounts of 1 to 2 inches over southern New England from Long Island to eastern Massachusetts, and additional rainfall of one inch or less along the coastline of the mid-Atlantic states.

SURF: Large waves generated by Hermine will affect the U.S. east coast from the mid-Atlantic states and expand northward along the coast of southern New England through Monday. These waves are likely to cause life-threatening surf and rip current conditions, and significant beach erosion. Please consult products from your local weather office.

#### **NEXT ADVISORY**

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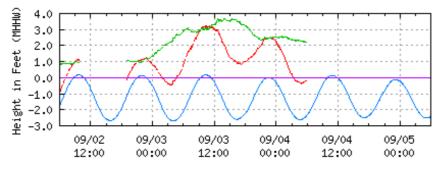
Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

Forecaster Stewart

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Chesapeake Bay Bridge Tunnel - Water Level, Chesapeake Bay Bridge Tunnel - Winds, Sewells Point - Water Level, Sewells Point - Barometric, Money Point - Water Level, Money Point - Winds, Kiptopeke - Water Level, Kiptopeke - Winds, Wachapreague - Water Level, Wachapreague - Barometric, Ocean City Inlet - Water Level, Ocean City Inlet - Water Level, Lewes - Winds, Cape May - Water Level, Cape May - Winds, Atlantic City - Water Level, Atlantic City - Barometric, Sandy Hook - Water Level, Sandy Hook - Winds, Sandy Hook - Barometric, Montauk - Water Level, Montauk - Barometric, Duck - Water Level, Duck - Winds, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds

## NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA Preliminary Water Level, relative to Mean Higher High Water(MHHW)

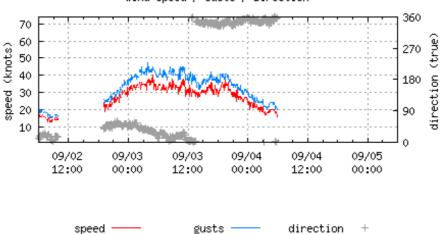


Predicted Tide —— (Obs-Pred) —— Observed WL —— MHHW ——

Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -0.18 ft. Predicted: -2.36 ft. Residual: 2.18 ft. Historical Maximum Water Level: Nov 12 2009, 4.66 ft.

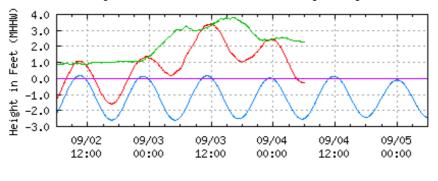
Next High Tide: 09/04/2016 10:54 (EDT), 0.14 ft.

## NOAA/NOS/CO-OPS <u>8638863 Chesapeake Bay Bridge Tunnel, VA</u> Wind Speed / Gusts / Direction



Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 18 knots Gusts: 20 knots Direction: 355° T

# NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

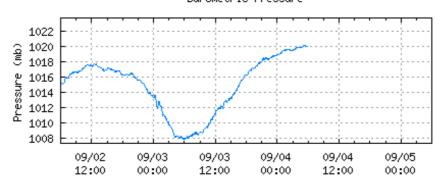


Predicted Tide (Obs-Pred) — Observed WL (Obs-Pred) — MHHW —

Last Observed Sample: 09/04/2016 06:00 (EDT). Data relative to MHHW Observed: -0.24 ft. Predicted: -2.51 ft. Residual: 2.27 ft.

Historical Maximum Water Level: Aug 23 1933, 5.26 ft. Next High Tide: 09/04/2016 11:47 (EDT), 0.13 ft.

### NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Barometric Pressure

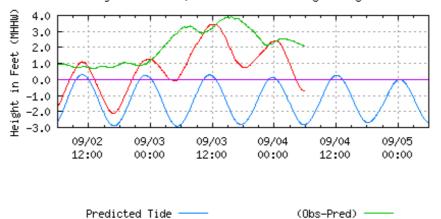


barometric pressure ----

Last Observed Sample: 09/04/2016 06:00 (EDT)

Barometric Pressure: 1020.0 mb

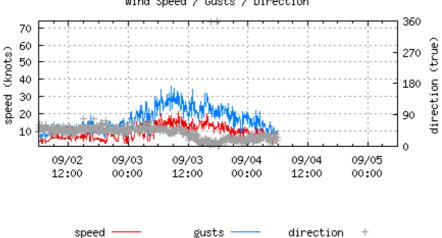
# NOAA/NOS/CO-OPS <u>8639348 Money Point, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Observed WL — MHHW — Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW

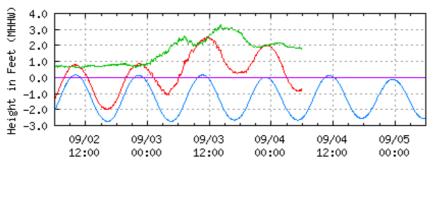
Observed: -0.72 ft. Predicted: -2.83 ft. Residual: 2.11 ft. Historical Maximum Water Level: Nov 13 2009, 5.37 ft. Next High Tide: 09/04/2016 12:06 (EDT), 0.25 ft.

#### NOAA/NOS/CO-OPS <u>8639348 Money Point, VA</u> Wind Speed / Gusts / Direction



Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 6 knots Gusts: 10 knots Direction: 27° T

## NOAA/NOS/CO-OPS <u>8632200 Kiptopeke, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

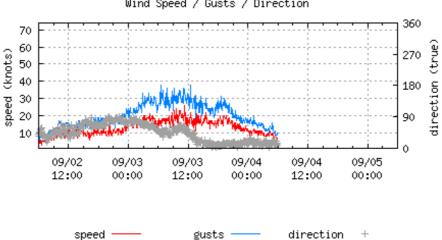


Predicted Tide (Obs-Pred) (Obs-Pred) MHHW (MHHW)

Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -0.73 ft. Predicted: -2.57 ft. Residual: 1.84 ft. Historical Maximum Water Level: Mar 8 1962, 4.13 ft.

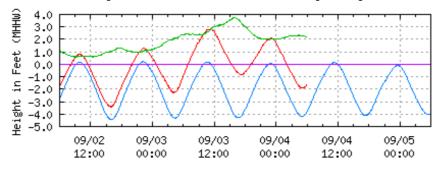
Next High Tide: 09/04/2016 11:17 (EDT), 0.13 ft.

#### NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA Wind Speed / Gusts / Direction



Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 6 knots Gusts: 10 knots Direction: 15° T

## NOAA/NOS/CO-OPS <u>8631044 Wachapreague</u>, <u>VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

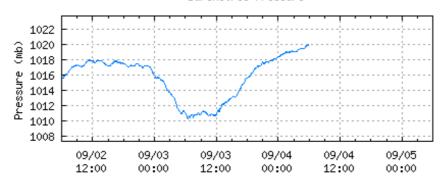


Predicted Tide (Obs-Pred) Observed WL MHHW -

Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -1.65 ft. Predicted: -3.87 ft. Residual: 2.22 ft.

Historical Maximum Water Level: Feb 5 1998, 4.41 ft. Next High Tide: 09/04/2016 11:20 (EDT), 0.14 ft.

### NOAA/NOS/CO-OPS <u>8631044 Wachapreague</u>, <u>VA</u> Barometric Pressure

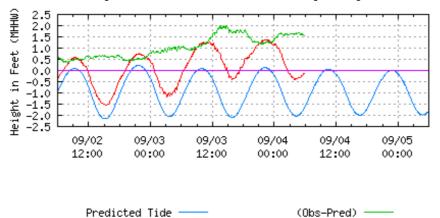


barometric pressure ----

Last Observed Sample: 09/04/2016 05:54 (EDT)

Barometric Pressure: 1020.0 mb

## NOAA/NOS/CO-OPS <u>8570283 Ocean City Inlet, MD</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



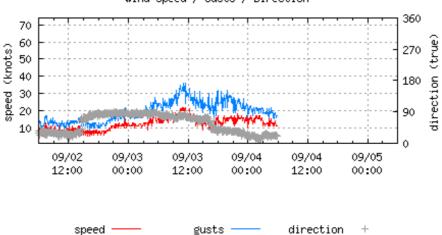
Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -0.14 ft. Predicted: -1.64 ft. Residual: 1.50 ft.

MHHW

Observed WL

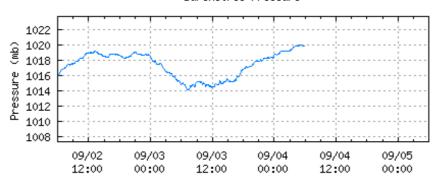
Historical Maximum Water Level: Feb 5 1998, 3.61 ft. Next High Tide: 09/04/2016 10:32 (EDT), 0.06 ft.

#### NOAA/NOS/CO-OPS <u>8570283 Ocean City Inlet, MD</u> Wind Speed / Gusts / Direction



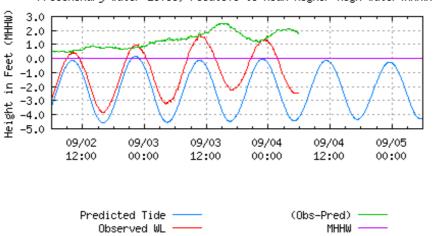
Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 11 knots Gusts: 17 knots Direction: 24° T

#### NOAA/NOS/CO-OPS <u>8570283 Ocean City Inlet, MD</u> Barometric Pressure



barometric pressure ——
Last Observed Sample: 09/04/2016 05:54 (EDT)
Barometric Pressure: 1020.0 mb

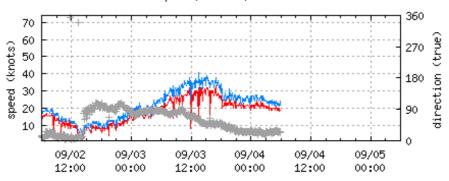
### NOAA/NOS/CO-OPS <u>8557380 Lewes</u>, <u>DE</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -2.42 ft. Predicted: -4.21 ft. Residual: 1.79 ft. Historical Maximum Water Level: Mar 6 1962, 4.57 ft. Next High Tide: 09/04/2016 11:17 (EDT), -0.14 ft.

11

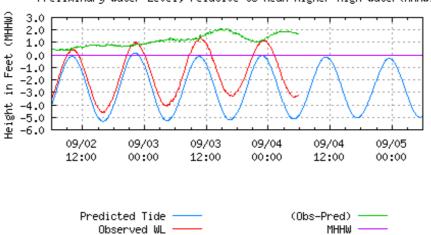
#### NOAA/NOS/CO-OPS <u>8557380 Lewes, DE</u> Wind Speed / Gusts / Direction



speed gusts direction
Last Observed Sample: 09/04/2016 05:54 (EDT)

Wind Speed: 19 knots Gusts: 22 knots Direction: 24° T

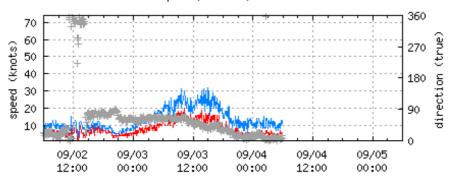
#### NOAA/NOS/CO-OPS <u>8536110 Cape May</u>, <u>NJ</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -3.23 ft. Predicted: -4.88 ft. Residual: 1.65 ft.

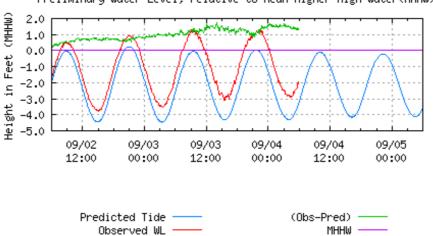
Historical Maximum Water Level: Oct 29 2012, 3.44 ft. Next High Tide: 09/04/2016 11:12 (EDT), -0.17 ft.

#### NOAA/NOS/CO-OPS <u>8536110 Cape May, NJ</u> Wind Speed / Gusts / Direction



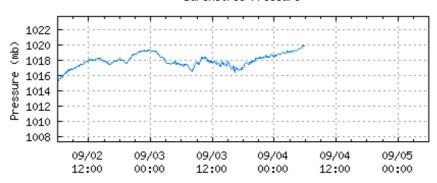
speed — gusts — direction + Last Observed Sample: 09/04/2016 05:54 (EDT)
Wind Speed: 6 knots Gusts: 13 knots Direction: 7° T

NOAA/NOS/CO-OPS <u>8534720 Atlantic City, NJ</u>
Preliminary Water Level, relative to Mean Higher High Water(MHHW)



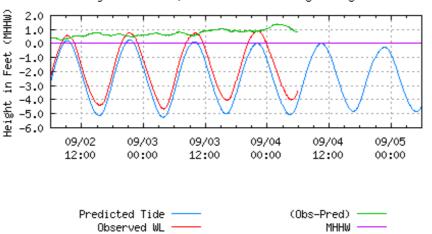
Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -1.97 ft. Predicted: -3.30 ft. Residual: 1.33 ft. Historical Maximum Water Level: Dec 11 1992, 4.38 ft. Next High Tide: 09/04/2016 10:07 (EDT), -0.10 ft.

#### NOAA/NOS/CO-OPS <u>8534720 Atlantic City</u>, NJ Barometric Pressure



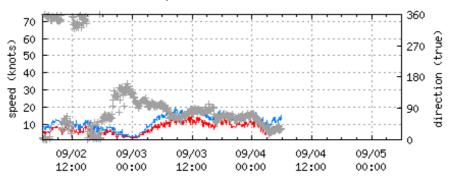
barometric pressure ——
Last Observed Sample: 09/04/2016 05:54 (EDT)
Barometric Pressure: 1019.9 mb

### NOAA/NOS/CO-OPS <u>8531680 Sandy Hook, NJ</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -3.36 ft. Predicted: -4.22 ft. Residual: 0.86 ft. Historical Maximum Water Level: Sep 12 1960, 4.86 ft. Next High Tide: 09/04/2016 10:34 (EDT), 0.01 ft.

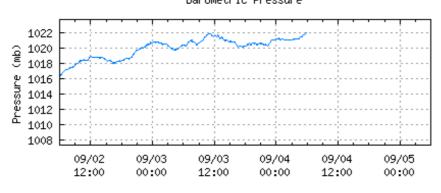
# $\begin{array}{c} NOAA/NOS/CO\text{-}OPS \ \underline{8531680} \ Sandy \ Hook, \ NJ \\ \text{Wind Speed} \ / \ Gusts \ / \ Direction \end{array}$



speed gusts direction + Last Observed Sample: 09/04/2016 05:54 (EDT)

Wind Speed: 7 knots Gusts: 13 knots Direction: 30° T

#### NOAA/NOS/CO-OPS <u>8531680 Sandy Hook, NJ</u> Barometric Pressure

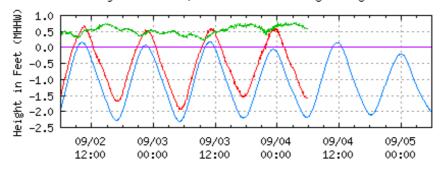


barometric pressure ----

Last Observed Sample: 09/04/2016 05:54 (EDT)

Barometric Pressure: 1022.0 mb

# NOAA/NOS/CO-OPS <u>8510560 Montauk, NY</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

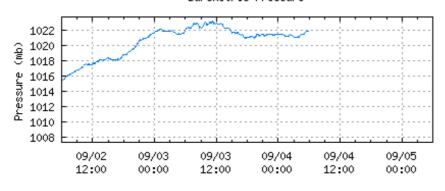


Predicted Tide (Obs-Pred)
Observed WL MHHW

Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -1.58 ft. Predicted: -2.17 ft. Residual: 0.59 ft. Historical Maximum Water Level: Aug 31 1954, 5.91 ft.

Next High Tide: 09/04/2016 11:40 (EDT), 0.15 ft.

#### NOAA/NOS/CO-OPS <u>8510560 Montauk</u>, <u>NY</u> Barometric Pressure

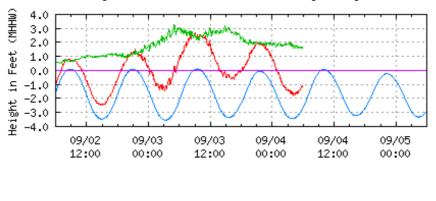


barometric pressure ----

Last Observed Sample: 09/04/2016 05:54 (EDT)

Barometric Pressure: 1021.8 mb

## NOAA/NOS/CO-OPS <u>8651370 Duck</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: -1.12 ft. Predicted: -2.70 ft. Residual: 1.58 ft.

(Obs-Pred)

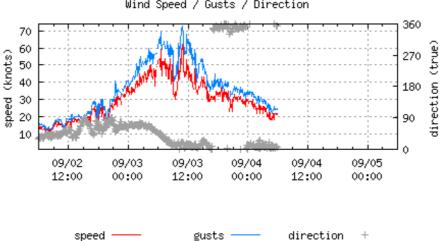
MHHW

Predicted Tide

Observed WL

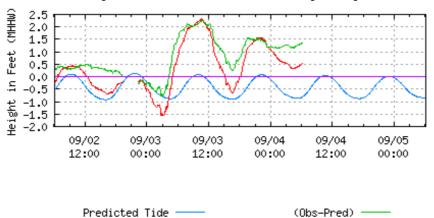
Historical Maximum Water Level: Sep 18 2003, 4.13 ft. Next High Tide: 09/04/2016 10:04 (EDT), 0.08 ft.

# $\begin{array}{c} NOAA/NOS/CO\text{-}OPS \ \underline{8651370 \ Duck, \ NC} \\ \text{Wind Speed} \ / \ \text{Gusts} \ / \ \text{Direction} \end{array}$



Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 21 knots Gusts: 25 knots Direction: 7° T

# $NOAA/NOS/CO-OPS ~ \underline{8652587~Oregon~Inlet~Marina,~NC} \\ Preliminary~Water~Level,~relative~to~Mean~Higher~High~Water(MHHW) \\$



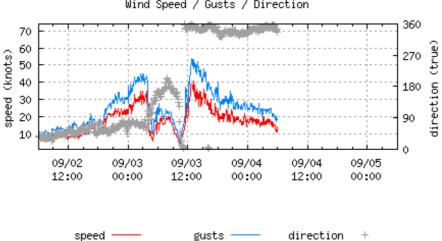
Last Observed Sample: 09/04/2016 06:06 (EDT). Data relative to MHHW Observed: 0.54 ft. Predicted: -0.82 ft. Residual: 1.36 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft.

MHHW

Observed WL

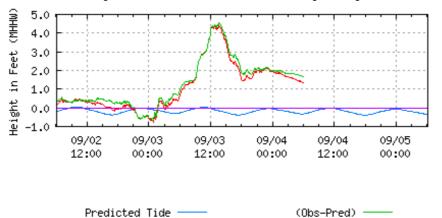
Next High Tide: 09/04/2016 10:36 (EDT), 0.04 ft.

### NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina</u>, NC Wind Speed / Gusts / Direction



Last Observed Sample: 09/04/2016 06:06 (EDT) Wind Speed: 14 knots Gusts: 18 knots Direction: 346° T

## NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatters</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



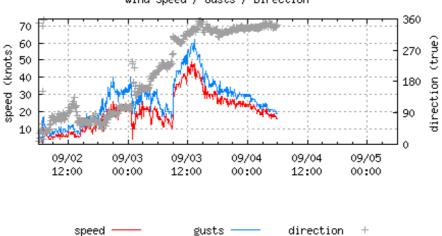
Last Observed Sample: 09/04/2016 05:54 (EDT). Data relative to MHHW Observed: 1.34 ft. Predicted: -0.32 ft. Residual: 1.66 ft. Historical Maximum Water Level: Oct 29 2012, 4.02 ft.

Next High Tide: 09/04/2016 11:17 (EDT), -0.01 ft.

MHHW

Observed WL

### NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatterss</u>, NC Wind Speed / Gusts / Direction



Last Observed Sample: 09/04/2016 05:54 (EDT) Wind Speed: 16 knots Gusts: 19 knots Direction: 343° T

Latest Water Level Observations on MHHW

| Station II | Station Name                        | Date/Time                 | Observed<br>Water<br>Level | Predicted<br>Tide | Residual<br>Water<br>Level | 24 Hour<br>Maximum<br>Storm<br>Tide |
|------------|-------------------------------------|---------------------------|----------------------------|-------------------|----------------------------|-------------------------------------|
| 8638863    | Chesapeake Bay Bridge Tunnel,<br>VA | 09/04/2016 05:54<br>(EDT) | -0.18 ft                   | -2.36 ft          | 2.18 ft                    | 3.24 ft                             |
| 8638610    | Sewells Point, VA                   | 09/04/2016 06:00<br>(EDT) | -0.24 ft                   | -2.51 ft          | 2.27 ft                    | 3.40 ft                             |
| 8639348    | Money Point, VA                     | 09/04/2016 05:54<br>(EDT) | -0.72 ft                   | -2.83 ft          | 2.11 ft                    | 3.45 ft                             |
| 8632200    | Kiptopeke, VA                       | 09/04/2016 05:54<br>(EDT) | -0.73 ft                   | -2.57 ft          | 1.84 ft                    | 2.52 ft                             |
| 8631044    | Wachapreague, VA                    | 09/04/2016 05:54<br>(EDT) | -1.65 ft                   | -3.87 ft          | 2.22 ft                    | 2.83 ft                             |
| 8570283    | Ocean City Inlet, MD                | 09/04/2016 05:54<br>(EDT) | -0.14 ft                   | -1.64 ft          | 1.50 ft                    | 1.39 ft                             |
| 8557380    | Lewes, DE                           | 09/04/2016 05:54<br>(EDT) | -2.42 ft                   | -4.21 ft          | 1.79 ft                    | 1.70 ft                             |
| 8536110    | Cape May, NJ                        | 09/04/2016 05:54<br>(EDT) | -3.23 ft                   | -4.88 ft          | 1.65 ft                    | 1.44 ft                             |
| 8534720    | Atlantic City, NJ                   | 09/04/2016 05:54<br>(EDT) | -1.97 ft                   | -3.30 ft          | 1.33 ft                    | 1.34 ft                             |
| 8531680    | Sandy Hook, NJ                      | 09/04/2016 05:54<br>(EDT) | -3.36 ft                   | -4.22 ft          | 0.86 ft                    | 0.91 ft                             |
| 8510560    | Montauk, NY                         | 09/04/2016 05:54<br>(EDT) | -1.58 ft                   | -2.17 ft          | 0.59 ft                    | 0.60 ft                             |
| 8651370    | Duck, NC                            | 09/04/2016 05:54<br>(EDT) | -1.12 ft                   | -2.70 ft          | 1.58 ft                    | 2.68 ft                             |
| 8652587    | Oregon Inlet Marina, NC             | 09/04/2016 06:06<br>(EDT) | 0.54 ft                    | -0.82 ft          | 1.36 ft                    | 2.32 ft                             |
| 8654467    | USCG Station Hatteras, NC           | 09/04/2016 05:54<br>(EDT) | 1.34 ft                    | -0.32 ft          | 1.66 ft                    | 4.38 ft                             |

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